

Cautionary Signals.—During the past month 163 Cautionary Signals have been displayed at 47 stations on the Gulf and Atlantic coasts, and on the Lakes, of which 94, or 58 per cent., were reported verified within 100 miles of the station. Thirty-one cases of high winds, where no signals were displayed, have also been reported from these stations.

NAVIGATION.

Stages of water in rivers.—In the table, on Chart No. III, are given the highest and lowest readings on the river gauges for the month, from which it will be seen that the central Mississippi fell from the middle of the month steadily to the end, the fall at St. Louis and Keokuk being about four feet; similarly the Missouri also fell throughout the month by about one foot at Yankton, and two feet six inches at Leavenworth. The water has been at some stations remarkably low.

Low Water, detrimental to navigation, has been reported as follows: *Mississippi*, 16th, Keokuk, Iowa, river low, delaying light draft boats; 22d, river still falling, canal closed; reports of low water at St. Louis and Alton. 30th, Shreveport, steady fall in river during month, navigation obstructed; reports of low water also come in from the Ohio at Evansville and Louisville.

Special Phenomena.—On the 21st, just before day-break, a wave two feet high, similar to the earthquake waves in the Atlantic and Pacific oceans, swept across Lake St. Clair, from west to east. On the 24th, at Marquette, Mich., between 10 a. m. and 3 p. m., the wind being light from the SE., the water in the Lake fell fifteen inches.

TEMPERATURE OF WATER.

In General.—The temperatures of water, as observed in rivers and harbors, are shown in the table on Chart No. III.

Maximum and Minimum Temperatures.—The highest maxima have been 90° at Galveston, 88° at Wilmington, 86° at Mobile and Augusta, 85° at Montgomery, 84° at Charleston and Savannah, and lowest minima have been 45° at Duluth, 46° at Eastport, 55° at Portland, Me., 56° at Marquette, 58° at Alpena and Escanaba, 59° at San Francisco.

Ranges of Temperature.—The least ranges have been: 2° at San Francisco; 3°, Eastport; 4°, Marquette; 6°, Portland, Me., Wood's Holl, New London, Buffalo and La Crosse; and largest ranges have been 20°, Galveston and Wilmington; 21°, Duluth.

ATMOSPHERIC ELECTRICITY.

Thunder-storms were reported at stations in the respective States as follows: 1st, Ala., Nev., Conn., Ill., Kan., Miss., Mo., N. J., N. C., Pa., Tex., Va., W. Va., Fla., Tenn., Ga., Ind. Ter. 2nd, Col., Wy., Fla., Mich., Miss., N. Y., Tex., N. C. 3rd, Dak., Col., Kan., Me., N. Y., Tex., La., Ariz. 4th, Dak., Col., Mich., Miss., Tex., Wis. 5th, N. Y., Col., Iowa, Me., Miss., Neb., Tex., Vt. 6th, Ga., Iowa, Me., Miss., N. Y., N. C., Tex., Wash. Ter. 7th, Dak., Wy., Fla., Iowa, Miss., S. C., N. C., Fla., Ga., Minn. 8th, Col., Dak., Kan., Mo., Neb., N. J., Tex., Ind. Ter., Ga. 9th, Ga., Ill., Miss., Mo., Tex., Fla. 10th, Fla., Ga., Ind., Mich., Miss., Ohio, Tenn. 11th, Cal., Fla., Ga., N. C., Pa., Tex., W. Va., Ariz. 12th, Dak., Wy., Md., Miss., Mo., N. J., N. C., Ohio, Pa., Tex., Utah, Va., W. Va., N. Y., La., D. C. 13th, Dak., Wy., Fla., Ill., Kan., Md., Miss., N. J., N. Y., N. C., Ohio, Tex., Va., W. Va., S. C., Ga., D. C., Minn. 14th, Dak., Ill., Iowa, Kan., Md., Miss., Mo., Neb., N. C., W. Va., Ga., Wis., Ind. Ter., Tex. 15th, Dak., Va., Ill., Iowa, Ky., Md., Miss., N. C., Pa., Tex., S. C., Ga., Ind. 16th, Ill., Ind., Me., Mass., N. Y., Tenn., Va., Ky. 17th, N. Y., Va., Ind., Me., Md., Miss., N. J., Ohio, Pa., Tex., Vt., W. Va., Ind. Ter., D. C. 18th, Iowa. 19th, Fla. 20th, N. Y., Ga., S. C., N. C., Fla. 21st, Col., Me., Mass., N. Y., Ga. 22nd, Dak., Ga., Me. 23rd, Dak., Neb., Col., Ga. 24th, Neb., Iowa, Wis., Mich., Dak., N. Mex. 25th, Tex., Ill., Iowa, Kan., Mich., Mo., Wis., Ind. Ter., Neb. 26th, Dak., Iowa, N. Y., Me., Mich., Neb., Ohio, Pa., Vt., Wis., Mo., Ga., Tex. 27th, Conn., N. Y., Wis., Tenn., Mich., Ala. 28th, N. Y., Pa., Vt., N. C., Mich. 29th, Mich., Wis. 30th, Iowa, Neb., Wis.

Distant Thunder and Lightning was reported from stations, in the respective states, as follows: 1st, Ga., Kan., Md., Mass., N. Y., Pa., S. C., Ind. Ter., La., Tex. 2nd, Md., Mass., N. C., Va., Ga., La., Tex. 3rd, Tex. 4th, Iowa, Neb., Wis., Dak., N. Mex., Minn. 5th, Me., Mass., Ga., Tex. 6th, Ga., Mich., N. C., La., Dak. 7th, Neb., S. C., Pa., Ga. 8th, Md., Tex. 9th, Tenn., La., Me., Tex. 10th, N. C., Ohio, Tex., Ind. 11th, N. C., Ohio, S. C., Ga., Ind. Ter., Tex. 12th, Md., N. C., S. C., Ga., Iowa, Tex. 13th, Iowa, Neb., Ohio, Ga., Dak., Minn. 14th, Md., Va., Iowa, Ind. Ter., Dak. 15th, Tenn., Wis., Ga. 16th, Ill., Ind., Kan., Mo., Tenn., Ohio, Iowa, Ind. Ter. 17th, Va., Ohio. 19th, Ga. 20th, Utah. 23rd, Fla. 24th, Wis., Wyo., Neb. 25th, Ill., Iowa, Kan., N. Y., Wis., Vt. 26th, Ill., Iowa, Kan., Wis. 27th, Mo., Ga. 28th, Md. 30th, Ill., Mich., Wis.